

confuse *Setophaga ruticilla* with *Toxostoma rufum*. Nor would the layman be likely to say that either had red wings. The brown thrasher has no really red coloring in its feathers; it is brown. The redstart is mostly black with a few red feathers in wing and tail.

There is, however, a bird native to Powhatan lands and unknown as well by scientists as by laymen in any form in Europe. In sweep of tail, wings, size, and over-all appearance, a layman might well consider it thrasherlike. This is more true of the female than of the male. Almost any ornithologist would glance once at its beak, note the difference from the characteristic thrasher beak, and conclude it is not thrasherlike at all. But laymen are prone to overlook such scientifically conclusive identifying details.

This bird is migratory through and a year-round sojourner in Powhatan lands. It was first classified by English ornitholo-

gists as *Cardinalis virginianensis*; by modern American birdmen as *Richmondia cardinalis*. In winter it often flocks in groups of eight or more pairs. It is the carnation-colored winged bird of Powhatan countries. Accepting the Penobscot analogy as valid without the diminutive, it is the veritable flame of Virginia tidewater woodlands and lawns.

We are aware that our methods are based on practical rather than scientific and technical considerations. But the methods used are the same as those by which Topsell's drawing and Strachey's description most likely were arrived at in the first place. Although we acknowledge that we may not have established the identity beyond all possibility of rational dispute, we feel that properly construed, the available evidence justifies the assertion that the *Aushouetta* and the *Ahshowcutters* are one and the same bird, and that bird is the cardinal.

ENTOMOLOGY.—*Notes on Oecophoridae, with descriptions of new species.*¹ J. F.

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Since the publication of my revision of the North American Oecophoridae² much additional material and information have come to hand. The purpose of this paper is to bring this information together and publish it as a supplement to my former work. In December 1945 I was able to study certain types of Walker, Zeller, and Meyrick, in the British Museum. With information obtained from this study it is now possible for me to correct some erroneous conceptions and to place properly species formerly known only from descriptions. In this paper eight species are described as new, and notes on distribution, food plants, and synonymy are given on thirty others. I take this opportunity also to correct some errors that occurred in my revision.

The accompanying drawings were made

and the plates composed by Arthur D. Cushman, chief scientific illustrator, Bureau of Entomology and Plant Quarantine.

Unless otherwise indicated specimens were collected and reared by the author.

For purposes of brevity references to my revision in the text are given by page or plate numbers only.

Agonopterix fulva (Walsingham)

Depressaria fulva Walsingham, Trans. Amer. Ent. Soc. 10: 175. 1882.

Depressaria endryopa Meyrick, *Exotic Microlepidoptera* 2: 223. 1918. (New synonymy.)

I have studied the unique type in the British Museum. The strikingly distinct genitalia of this species are unmistakable, and I do not hesitate to reduce Meyrick's name to synonymy.

Agonopterix oregonensis Clarke

Since describing this species in my revision I have reared a series of over a hundred specimens, from several hosts listed below, from various localities in California and Washington.

¹ Received December 2, 1946.

² CLARKE, J. F. GATES, *Revision of the North American moths of the family Oecophoridae, with descriptions of new genera and species*. Proc. U. S. Nat. Mus. 90: 33-286, pls. 1-48. 1941.

The species will be found through most of western North America because of its rather general feeding habits.

The California localities are as follows: Cottonwood, Tehama County; Pacheco Pass; Presidio of Monterey and Marina, Monterey County; Hunter Liggett Military Reservation, San Luis Obispo County. Washington: Gilmer and Husum, Klickitat County. In addition I have received 11 specimens from Dr. W. Harry Lange, from San Juan Bautista, Calif., reared from a species of *Sanicula*.

The larvae from the California localities were collected in February, March, and April, and those from Washington in May. The moths emerged through April and May to the 5th of June.

Larva: Length 12–14 mm. Head and thoracic shield black, the latter bisected by a fine brown line. First thoracic segment light brown, the legs and spiracles black. Second and third thoracic and abdominal segments dull yellowish infused with grayish dorsally. Setae brown. Spiracles narrowly edged with black. The prepupal larva has three well-defined grayish dorsal lines and the three terminal segments edged with grayish. Larvae of this species collected at Hunter Liggett Military Reservation differ from the above in having the second and third pairs of thoracic legs with tibia and tarsi brownish to black exteriorly.

Food plants.—*Eryngium vaseyi* Coult. & Rose, *Lomatium caruifolium* (H. & A.) Coult. & Rose, *L. marginatum* (Benth.) Coult. & Rose, *L. nudicaule* (Pursh) Coult. & Rose, *L. utriculatum* (Nutt.) Coult. & Rose, *Sanicula bipinnata* H. & A., *S. bipinnatifida* Dougl., *S. laciniata* H. & A., *S. nevadensis* S. Wats., and *S. tuberosa* Torr.

Agonopterix nebulosa (Zeller)

The food plant of this species, not previously recorded, is a species of *Antennaria*. I now have a series of one ♂ and four ♀♀, the larvae of which I collected at Lakeview, Chesterfield County, Va. The moths emerged from May 26 to 30, 1942.

The larva of this species ties the leaves of the host, as does its near relative *antennariella*.

Agonopterix fusciterminella Clarke

The range of this species is apparently wide. Originally it was described from material from

British Columbia and California. I now have it from New Mexico (♂, 2 ♀♀, July 24–31; no collector) and Manitoba (♀, Winnipeg; no date or collector).

Agonopterix rosaciliella (Busck)

The first specimens of this species from California were submitted by Edward C. Johnston, of Seattle, Wash. They are from the following localities: Inverness, Marin County, three ♂♂ (28-I-40); Spring Mountain, Sonoma County, ♂, ♀ (16-III-39, 26-I-40).

Agonopterix pallidella (Busck)

Depressaria pallidella Busck, Proc. U. S. Nat. Mus. 27: 765. 1904.

Depressaria sciadopa Meyrick, *Exotic Microlepidoptera* 2: 315. 1920. (New synonymy.)

There are two males of *sciadopa* Meyrick in the British Museum, both in poor condition. Of these I have selected the smaller one as the lectotype. This specimen is labeled "Field, British Columbia (4000 ft., A.J.T., 28-8-18)."

A study of the male genitalia of the lectotype shows them to be identical to those of *pallidella*, and Meyrick's name falls as a synonym.

My concept of *sciadopa*, based solely on Meyrick's description, led me to place the species in the *ciniflonella* group of *Martyrhilda*. Meyrick's species is not referable to *Martyrhilda*, but the species described and figured by me is referable to *Martyrhilda* and requires a name. In the following pages the proper correction is made and a new name supplied.

Agonopterix sabulella (Walsingham)

In addition to the specimens discussed in my revision I now have before me a series of nine specimens from King Mountain, San Mateo County, Calif. (May and July dates, W. Harry Lange), reared from *Eriophyllum confertiflorum* Gray, and a male and female from Chuckanut Bay, Bellingham, Whatcom County, Wash. (13-14-VI-46, J. F. G. Clarke), reared from *Eriophyllum lanatum* (Pursh) Forbes.

The Washington specimens are considerably darker than the California examples, but there is no doubt as to their identity.

Larva: Length 13–16 mm, subcylindrical. Head luteous with irregular light brown markings, darker around margins; ocellar area dark brown to black. Cervical shield and anal plate yellowish, the former with a few dark brown

markings on lateral and posterior margins. Thoracic and abdominal segments yellowish green with three gray-green dorsal longitudinal stripes. Thoracic legs yellowish. Spiracles small, black.

The larvae are abundant and together with *Nephoteryx olivalis* Packard, nearly strip the host of its leaves. Young larvae of *sabulella* are found in the terminal leaves and buds of the host, the older ones in the lateral leaves which they tie to the stalk of the plant.

The food plant grows on the rocky slopes and beside the railroad tracks around the sea-shore of Chuckanut Bay, south of Bellingham.

***Agonopterix dammersi*, n. sp.**

Figs. 1-1a, 8

Similar to *sabulella* but grayer in appearance.

Labial palpus with second segment cream color interiorly, more ochereous exteriorly; brush trumpet-shaped, developed only in terminal half, irrorate with black and suffused with fuscous; third segment more ochereous with sub-basal, supramedial, and terminal bands black. Antenna fuscous. Face ochereous-white. Head, thorax, tegula, and forewing light grayish ochereous; thorax sparsely irrorate with black scales; forewing irrorate with black and with irregular patches of underlying gray suffusion, especially toward termen; at basal third and at end of cell two usually ill-defined, small, black discal spots; between these, costad, a moderately large dark shade; along costa and around termen a series of small black spots; cilia mottled; on the underside of forewing, along costa, and around termen, black irrorations. Hind wing fuscous; cilia light grayish fuscous with darker subbasal and subterminal bands; on the underside of hind wing, on costa and around termen, black irrorations. Legs cream color; first and second pairs strongly overlaid with blackish fuscous; third pair suffused and irrorate with fuscous. Abdomen light grayish ochereous above, cream color, with four rows of black spots, beneath.

Male genitalia.—Harpe moderately broad, sacculus rather narrow; cucullus rounded; clasper nearly straight, digitate. Anellus longer than broad, expanded laterally posterior to middle, sharply convex on anterior edge, with small lateral lobes. Aedeagus slightly bent; vesica with a small, finely spinulate, elongate patch. Vinculum rounded, with large dorsoan-

terior process. Transtilla a narrow sclerotized band with large lateral lobes. Socii very large, compressed.

Female genitalia.—Genital plate rather lightly sclerotized, broad, strongly convex on anterior edge at middle. Ostium large, at center of genital plate. Ductus bursae entirely membranous gradually tapering into the small bursa copulatrix; inception of ductus seminalis just before ostium. Signum a small, toothed plate at extreme anterior end of bursa copulatrix.

Alar expanse, 20-23 mm.

Type.—U.S.N.M. no. 58012.

Type locality.—Forest Home, San Bernardino County, Calif.

Food plant.—*Senecio douglasii* D. C.

Remarks.—Described from the ♂ type, two ♂ and four ♀ paratypes, collected and reared by Commander C. M. Dammers. One ♀ paratype is from Riverside, Calif. (April 24, 1938), the remainder are from the type locality and bear dates from June 13 to 16, 1940.

Paratypes in U. S. National Museum and Commander Dammers' collection.

This species can be distinguished from *sabulella* by its grayer color and by the slender terminal segment of the palpus with its three black bands; the terminal segment of the palpus of *sabulella* never has more than two ill-defined bands.

The clasper of the harpe of *sabulella* has a distinct terminal knob, while that of *dammersi* is straight, digitate, and lacks the knob. The lobes of the ovipositor of *dammersi* have more setae than those of *sabulella*, and the ostium is at the center of the genital plate in *dammersi* but at the posterior edge in *sabulella*.

In the color key of my revision *dammersi* runs to *fusciterminella*, but can be distinguished from that species by the complete absence of any reddish coloring.

Named in honor of Commander Dammers who has been a friendly contributor to the National Collection for many years.

***Agonopterix latipalpella* Barnes and Busck**

In addition to the type series I now have a series of one ♂ and three ♀ ♀ from San Benito and Brownsville, Tex. These bear April dates.

***Agonopterix murmurans* (Meyrick)**

Depressaria murmurans Meyrick, *Exotic Microlepidoptera* 3: 382. 1927.—Clarke, Proc. U. S. Nat. Mus. 90: 39. 1941.

This species has genitalia similar to *psoraliella* but is of quite different appearance. Until the species is reared or intergrades between this and *psoraliella* are found I am retaining *murmurans* as a distinct species.

In the U. S. National Collection there are three specimens as follows: Utah: Eureka, ♂ (VII-1-11, Tom Spalding); Stockton, ♀ (no date, Tom Spalding). Washington: Pullman, ♀ (1-X-32, J. F. G. Clarke).

Agonopterix robiniella (Packard)

To the localities previously recorded for this species a single record for New Mexico (♂, Jemez Springs, July) may now be added.

Agonopterix posticella (Walsingham)

This species has not been recorded before north of Oregon. We now have a series of two ♂♂ and three ♀♀ from Chimacum, Kitsap County, Wash. (August 2, 1944), reared from *Psoralea physodes* Dougl.

The Washington specimens are considerably darker than the California and Oregon examples, but there is no doubt about their identity.

Martyrhilda canella (Busck)

In Fig. 44, I figured the wing venation of this species incorrectly. The figure of the hind wing shows only seven veins and should show eight. In the generic diagnosis eight veins are correctly indicated.

Martyrhilda thoracenigraeella (Chambers)

An additional four specimens (three ♂♂, ♀) of this species have come to hand. These were collected by E. C. Johnston at Petaluma, Calif. (2-20-X-1936).

Martyrhilda thoracefasciella (Chambers)

A large series of this species, which has accumulated, indicates it is widespread through California and Arizona. In addition we have one specimen from Pyramid Lake, Nev. (♀, no date or collector).

Martyrhilda isa, n. sp.

Martyrhilda sciadopa Clarke (not Meyrick), Proc. U. S. Nat. Mus. 90: 144, pl. 24, fig. 149, 149a; pl. 41, fig. 236. 1941.

Type.—U.S.N.M. No. 58014.

Type locality.—Aweme, Manitoba.

Food plant.—Unknown.

Remarks.—Under the name *sciadopa* I dis-

cussed and figured this species. In the foregoing pages Meyrick's name is discussed under *Agonopterix pallidella* (Busck).

The paratypes consist of the specimens listed in my revision plus the following: Alberta: Edmonton, four ♂♂, six ♀♀ (March, April, and May, Owen Bryant); Manitoba: Aweme, ♀ (21-III-05, Criddle); Cartwright, ♂ (1-IV-05, E. F. Heath); Ontario: Hymers, six ♂♂, two ♀♀ (August and September). Paratypes in the U. S. National and British Museums.

Depressaria artemisiella McDunnough

Heretofore recorded only from the type locality in British Columbia. There is one specimen in the U. S. National Museum from Deer Creek, Provo Canyon, Utah (♂, 8-IX-18, Tom Spalding).

Depressaria artemisiae dracunculi Clarke

The range of this subspecies is now extended to Manitoba. Specimens submitted are from Aweme (♂, 9-IX-28; ♀, 2-VIII-20. N. Criddle).

Depressaria alienella Busck

Depressaria alienella Busck, Proc. U. S. Nat. Mus. 27: 765. 1904.

Depressaria nymphidia Meyrick, *Exotic Microlepidoptera* 2: 223. 1918. (New synonymy.)

Depressaria corystopa Meyrick, *Exotic Microlepidoptera* 3: 382. 1927. (New synonymy.)

The types of both of Meyrick's species are in the British Museum.

I have seen the types and have examined the genitalia of both. The moths agree with specimens in the U. S. National Museum from widespread localities in North America and the genitalia match perfectly. Meyrick's names therefore fall as synonyms of *alienella*.

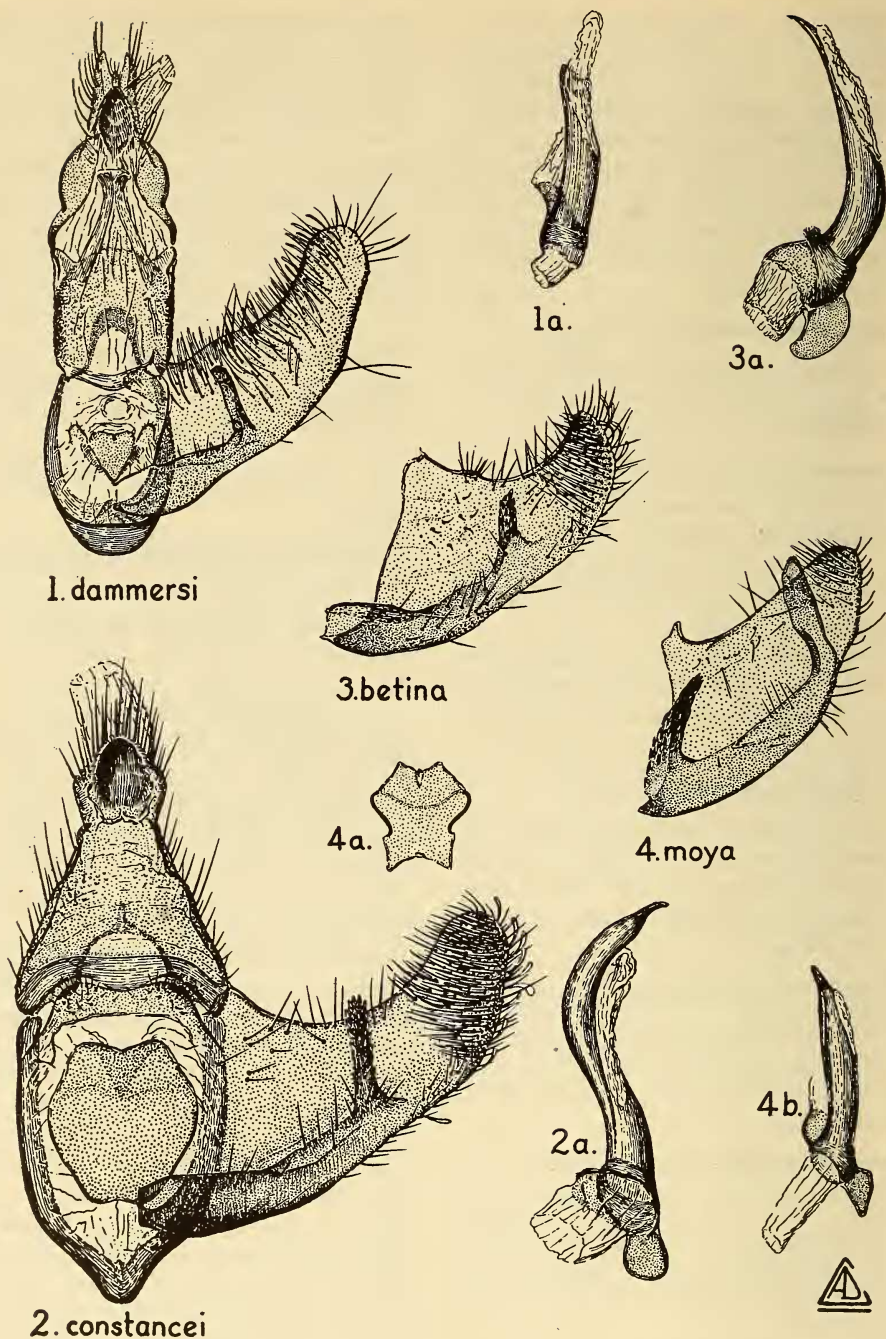
Type localities.—Kaslo, British Columbia, Canada (*alienella*); Colorado (*nymphidia*); Toronto, Ontario, Canada (*corystopa*).

The widely separated type localities only emphasize the great range of this species. In addition to the localities given in my revision there are now specimens from the following localities: Arizona: White Mountains (♂, August 1925, O. C. Poling); Connecticut: East River (♀, July, Charles R. Ely).

Depressaria constancei, n. sp.

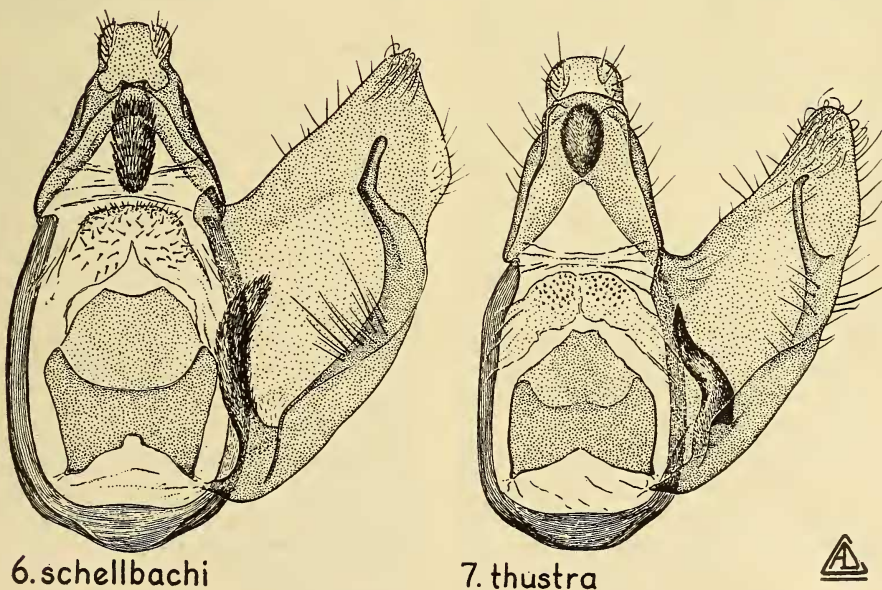
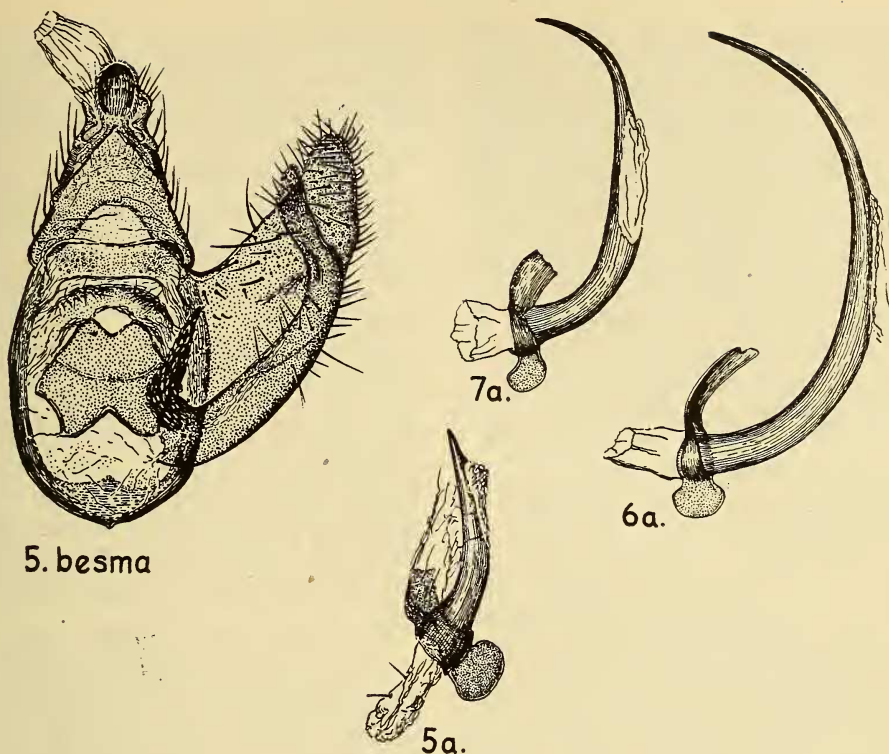
Figs. 2-2a, 9-9a

This is the largest species of *Depressaria* I have seen from North America and resembles only the following newly described species.



FIGS. 1-4.—Male Genitalia

- 1-1a. *Agonopterix dammersi*, new species: 1, Ventral aspect of male genitalia with left harpe and aedeagus removed; 1a, aedeagus, lateral view.
 2-2a. *Depressaria constancei*, new species: 2, Ventral aspect of male genitalia with left harpe and aedeagus removed; 2a, aedeagus, ventrolateral view to show twist.
 3-3a. *Depressaria betina*, new species: 3, Ventral aspect of right harpe; 3a, aedeagus, lateral view.
 4-4b. *Depressaria moya*, new species: 4, Ventral view of right harpe; 4a, ventral aspect of anellus; 4b, aedeagus, lateral view.



FIGS. 5-7.—Male Genitalia

5-5a. *Depressaria besma*, new species: 5, Ventral aspect with left harpe and aedeagus removed; 5a, aedeagus, lateral view.

6-6a. *Depressaria schellbachi*, new species: 6, Ventral aspect with left harpe and aedeagus removed; 6a, aedeagus, lateral view.

7-7a. *Depressaria thustra*, new species: 7, Ventral aspect with left harpe and aedeagus removed; 7a, aedeagus, lateral view.

Labial palpus with second segment whitish ocherous, brush suffused with reddish fuscous; near base a fuscous band exteriorly; third segment fuscous strongly suffused with red; tip reddish ocherous. Antenna fuscous strongly suffused with red basally. Head fuscous, the scales tipped with cinereous. Thorax reddish fuscous anteriorly shading to gray posteriorly. Tegula dark reddish fuscous basally shading to gray posteriorly. Forewing purplish fuscous, heavily overlaid with red so that the wing presents a rich brown-red appearance, and irrorate and streaked with gray scales; inner angle narrowly black shading to reddish fuscous; at end of cell a pale gray discal spot preceded by a narrow fuscous streak and followed by a few fuscous scales. In some specimens the spot and streak are obsolete. At outer third there is a more or less distinct outwardly curved gray line; cilia fuscous tinged with reddish. Hind wing fuscous, lighter basally; cilia yellowish fuscous with dark basal and subterminal bands; beyond *1b* suffused with reddish. Costa of both fore- and hind wings edged with yellowish beneath and whole underside with abundant fuscous scaling. Abdomen silvery fuscous above, cream color overlaid with fuscous beneath. Legs with cream-colored femora overlaid with fuscous; first and second pairs with tibia suffused with pink and tarsi fuscous with pink annulations; tibia of third leg with numerous yellowish hairlike scales; tarsi fuscous annulated with yellowish.

Male genitalia.—Harpe much narrower beyond clasper than at base; cucullus rounded; clasper straight, slightly exceeding costa, roughened by many minute, blunt spines; sacculus narrow. Anellus longer than broad, broader at middle than at ends; proximal end slightly concave, distal end strongly so; lateral lobes absent. Vinculum slightly produced into a bluntly pointed process. Aedeagus moderately sclerotized, sharply pointed and twisted so much so that the distal end cannot be shown adequately due to foreshortening. Gnathos normal, an oval spined knob. Transtilla a moderately sclerotized band, anterior edge somewhat produced at middle and shallowly excavate on each side; transtillar lobes well developed. Uncus and socii forming a small hood.

Female genitalia.—Genital plate narrowed and strongly sclerotized at ostium; ostium triangular. Ductus bursae with a broad crescentic,

lightly sclerotized section before ostium, remainder membranous and spiraled; ductus seminalis on right side just before ostium. Bursa copulatrix large, oval; signum a small, narrow, toothed plate.

Alar expanse, 24–27 mm.

Type.—U.S.N.M. no. 58007.

Type locality.—Yreka, Siskiyou County, Calif.

Food plant.—*Lomatium californicum* (Nutt.) Math. & Const.

Remarks.—Described from the ♂ type, 12 ♂ and 13 ♀ paratypes from Yreka (21-V to 2-VI-46, J. F. G. Clarke), four ♀ paratypes from Kelseyville, (19-IV to 25-VII-1944, W. Harry Lange) and 1 ♂ from Pacheco Pass, Calif. (16-IV-1939, W. Harry Lange). All the Yreka specimens were reared from larvae collected by the author. Paratypes in the U. S. National and British Museums and W. Harry Lange Collection.

The larvae, from which the Yreka moths were obtained, were collected on plants growing along the east side of U. S. Highway 99, about 6 miles north of Yreka. The food plant grows abundantly on the rocky hillsides and in the canyons in this region and farther north in southern Oregon.

The larva is as follows: Length 17–18 mm. Head testaceous, strongly marked with dark brown laterally. Thoracic shield pale greenish brown broadly edged with black. Thoracic legs pale yellowish. Thoracic and abdominal segments concolorous, light gray-green above, pale yellowish green beneath. Spiracles narrowly edged with dark brown. Tubercles pale whitish green; setae brown. Anal plate light gray green finely irrorate with brown. In the early instars the head and thoracic shield are black.

The habits of this species are similar to many other species of *Depressaria*, the larvae being gregarious in the first instars and then spreading to the leaves of the plants. In the later stages the larvae are leaf rollers. New rolls are made from time to time to accommodate the growing larva.

Larvae and pupae are preserved in the U. S. National Museum.

This species keys to *juliella*, but is at once distinguished from it by the deep brown-red color.

This species is named in honor of my good

friend Lincoln Constance, of the Department of Botany, University of California, who has made all the determinations of the Umbelliferae for me and whose keen interest and enthusiasm have been a constant source of encouragement.

This and the following species, although *Lomatium* feeders, present a departure from the usual species (*angustati-multifidae* complex) feeding on these plants, both in coloration and male genitalia. The female genitalia retain the features of the other species and the larvae, like those of *angustati*, etc., have setal group VII on the first abdominal segment *trisetose*.

Both *betina* and *constancei* are reddish brown in general appearance, though amply distinct from each other, whereas the other species (*angustati*, *multifidae*, etc.) are dark fuscous in general coloration.

The male genitalia of *betina* and *constancei* lack the large, spinous process from the sacculus and the aedeagus is atypical.

The above characteristics seem to indicate that *betina* and *constancei* are transitional between the *juliella-heracliana* group and that containing *angustati-multifidae*.

Depressaria betina, n. sp.

Figs. 3-3a, 10

Strikingly similar to the foregoing species but smaller and more contrastingly marked.

Labial palpus with second segment creamy white with reddish-brown and fuscous scales mixed in the brush; exteriorly basal third broadly banded with blackish to reddish fuscous; at apical third an indication of a narrower similarly colored band; third segment blackish fuscous, with tip reddish ocherous. Antenna dark reddish fuscous narrowly annulated with reddish ocherous. Head and thorax cinereous, the former mixed with some fuscous scaling, the latter reddish fuscous anteriorly; tegula concolorous with thorax. Forewing dull grayish fuscous strongly overlaid with reddish fuscous scales and with the veins indicated by black streaks; anal angle narrowly black, shading outwardly to the ground color of the wing; discal spot at end of cell usually well defined, preceded by a streak of mixed gray and black scales and followed by a black streak; on costa, about middle, a small fuscous spot; at outer third an outwardly curved gray line; cilia fuscous with reddish suffusion. Hind wing

grayish fuscous, darker at margins; cilia light fuscous with darker basal and subterminal bands; beyond *1b* the cilia are narrowly tipped with pink. Undersides of fore- and hind wings dark fuscous; costa of forewing pale yellowish and that of hind wing creamy white. Abdomen silvery fuscous above, cream-colored, irrorate and suffused with fuscous, beneath. Legs creamy white overlaid with fuscous. Fore- and mid-tibiae and tarsi tinged with pink; hind tarsi annulated with pale reddish ocherous.

Male genitalia.—Similar to *constancei* but clasper not reaching costa, anellus nearly as broad as long and vinculum more broadly rounded.

Female genitalia.—Similar to *constancei* but the signum three times the size of *constancei* and with anterior and posterior points well developed.

Alar expanse, 19-23 mm.

Type.—U.S.N.M. no. 58008.

Type locality.—Gilmer, Klickitat County, Wash.

Food plants.—*Lomatium triternatum macrocarpum* (Coult. & Rose) Mathias, *L. dissectum* (Nutt.) Math. & Const., *L. columbianum* Math. & Const.

Remarks.—Described from the ♂ type, 18 ♂ and 11 ♀ paratypes as follows: Gilmer (type, 13 ♂♂ and eight ♀♀, 30-V to 10-VI-46); Husum (♀, 30-V-46); Lyle (five ♂♂ and two ♀♀, 5-10-VI-46). All localities are in Klickitat County, Wash., and all specimens were reared from larvae collected by the author.

L. triternatum macrocarpum was found on a steep open hillside growing in a *Rhus toxicodendron-Balsamorhiza sagittata* association and below this area, a mile east of Gilmer, on open, rocky rolling ground in which *Quercus* and *Salix* were the dominant plants. *L. dissectum* may be found growing among the brush on the roadside at Husum. *L. columbianum* grows above the Columbia River on the steep, rocky slopes. The collections from this plant were made 1 mile west of Lyle between the highway and the river.

Feeding of the larvae appears to be limited to the umbels and leaves, depending on the host. *L. dissectum* and *L. triternatum* usually have the umbels attacked but, since *L. columbianum* is in fruit at the time the larva of this species appears, the feeding takes place in the webbed leaves.

The larvae of this species and *D. constancei* are, like the adults, strikingly similar. The dark markings of the head and thoracic shield are more intense in *betina* than in *constancei*. The larvae of *constancei* average larger, and three, rather indistinct, dorsal longitudinal lines of *betina* are lacking in this species.

Larvae and pupae are preserved in the U. S. National Museum.

With *constancei* this species keys to *juliella* in the color key but like *constancei* is distinguished from that species by the much darker color. The grayish fuscous ground color of *betina* will separate it from *constancei*.

***Depressaria schellbachi*, n. sp.**

Figs. 6-6a, 13

Labial palpus ochereous white with a pink tinge; second segment irrorate with pink-tipped fuscous scales in the brush and with an indistinct fuscous spot subbasally and apically on the outside; third segment blackish fuscous, tip reddish ochereous. Antenna blackish fuscous with ill-defined narrow lighter annulations. Head reddish ochereous to reddish fuscous. Thorax and ground color of forewing reddish ochereous; anterior part of thorax and base of tegula blackish fuscous gradually shading to the lighter ground color. Forewing overlaid with fuscous; inner angle black shading to fuscous outwardly; in cell two, sometimes confluent, black longitudinal dashes; in fold, at basal third, a short black dash; veins 9, 10, and 11 sometimes marked by fine, black, longitudinal dashes; in center of wing at end of cell, a small reddish ochereous spot; cilia pale fuscous with a roseate tinge; underside of costa narrowly, but clearly, reddish ochereous. Hind wing whitish basally shading to dark fuscous at margins; cilia pale fuscous with a broad fuscous subbasal band and with a roseate tinge, especially apically. Legs ochereous-white overlaid and irrorate with fuscous; tarsi with reddish-ochereous annuli. Abdomen light fuscous; underside with considerable median ochereous-white scaling.

Male genitalia.—Harpe broad basally, abruptly narrowed to the bluntly pointed cucullus; costa almost straight, clasper narrow, transverse to middle, then sharply and outwardly angulate; basal process from sacculus narrow and almost of equal width throughout, slightly longer than

anellus, gently excurved and finely spinulate. Anellus as broad as long; anterior edge deeply excavate; lateral edges convex. Aedeagus two and a half times as long as costa of harpe, slender, evenly curved, sharply pointed; ventrobasal process large, shovel-shaped, outer edge emarginate; dorsobasal process small, winglike. Transtilla very lightly sclerotized, lobes mainly indicated by small setae. Gnathos elongate oval. Uncus and socii greatly reduced.

Female genitalia.—Genital plate narrow, posterior edge emarginate; ostium slitlike; anterior sclerotized pockets of genital plate small, shallow. Ductus bursae with more than half its length strongly sclerotized, this portion crescentic; inception of ductus seminalis well before ostium. Signum a large oval toothed plate.

Alar expanse, 21-24 mm.

Type.—U.S.N.M. No. 58013.

Type locality.—Shoshone Point, Grand Canyon, Ariz., elevation 7,050 feet.

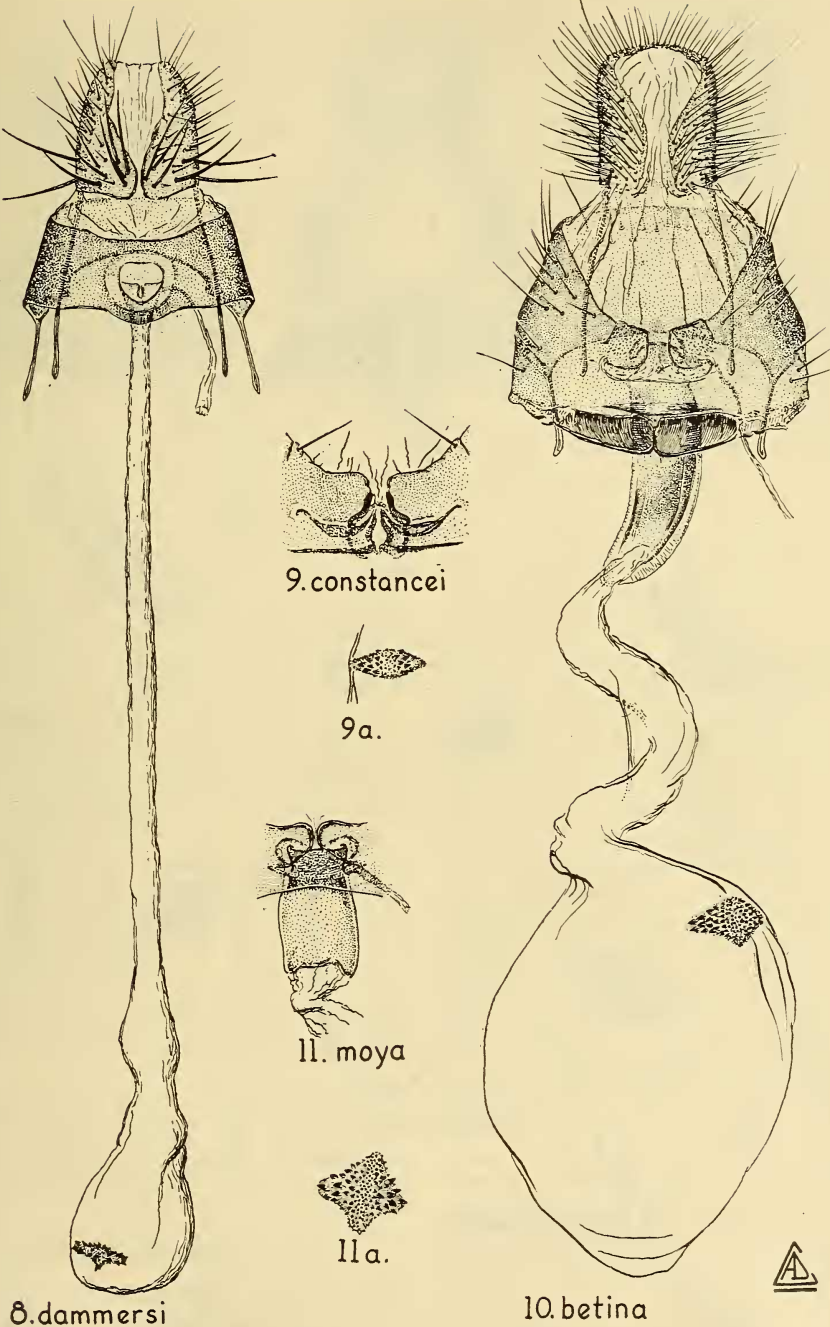
Food plant.—*Lomatium macdougali* Coult. and Rose.

Remarks.—Described from the ♂ type, five ♂ and three ♀ paratypes from the Grand Canyon (June dates, 1944 and 1946, Louis Schellbach, 3d). Paratypes in the U. S. National and British Museums and in the Grand Canyon National Park Collection.

In genitalia *schellbachi* is nearest to *whitmani*. It differs from the latter species in having a longer basal process from the sacculus and a longer anellus. In the female, *schellbachi* lacks the pronounced anterior and posterior median points of the signum and the posterior edge of the genital plate is emarginate. From other species of *Depressaria* in this complex *schellbachi* differs by its pronounced reddish coloration.

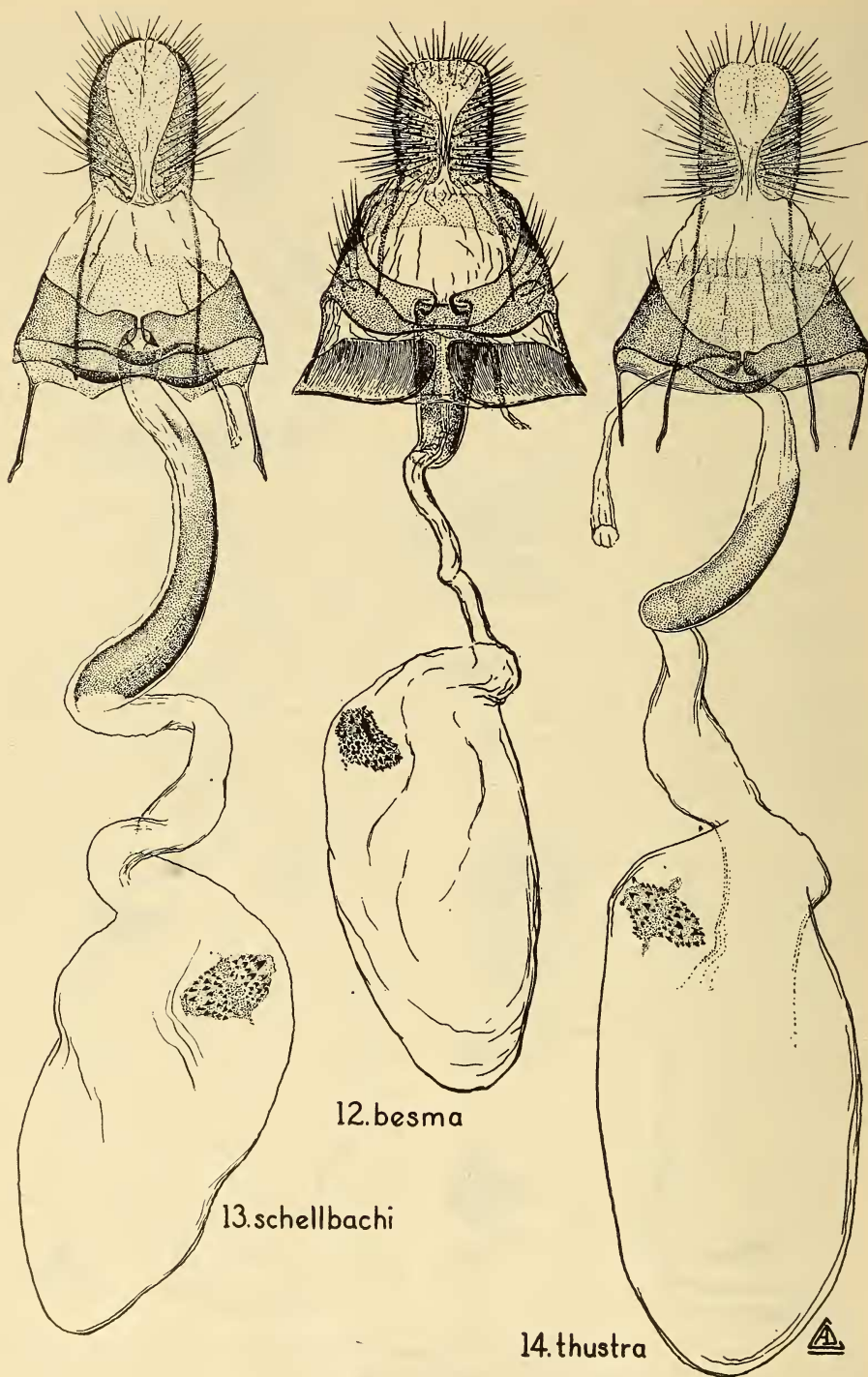
All the specimens of the type series were reared from larvae collected by Louis Schellbach, 3d, park naturalist of Grand Canyon National Park. His notes on the larvae, with my additions in brackets are reproduced below. It will be noted that the feeding of the *schellbachi* larvae is confined to the leaves.

"On May 28, 1944, two small green larvae, with black heads, were found on the above plant [*Lomatium macdougali*], deep down in the leaf stem sheaths of the plant. Attention to the plant was due to a cobwebby appearance about the base of the leaves where they leave the main stem or root. The plant was found



FIGS. 8-11.—Female Genitalia

8. *Agonopterix dammersi*, new species: Ventral view.
9-9a. *Agonopterix constancei*, new species: 9, Ventral aspect of genital plate to show ostium; 9a, signum.
10. *Agonopterix betina*, new species: Ventral view.
11-11a. *Agonopterix moya*, new species: 11, Ventral view of ostium and sclerotized portion of ductus bursae; 11a, signum.



FIGS. 12-14.—Female Genitalia

12. *Depressaria besma*, new species: Ventral aspect.
 13. *Depressaria schellbachi*, new species: Ventral aspect.
 14. *Depressaria thustra*, new species: Ventral aspect.

growing at Shoshone Point (elevation 7,050 feet) on the South Rim of Grand Canyon. The plant was collected with the larvae and placed in a rearing jar. During the next few days several others were found and brought in to the workshop.

"Eleven (11) in all were collected and seemed to be in a more advanced stage than those reared from the flower head collected on May 9, 1944 [*Sparganothis* sp.].

"With the knowledge gained in observing the specimens from the May 9 larvae, it was found that this group of larvae, collected feeding on the leaves, would not touch the flower heads when offered them. Yet both groups of larvae were found on the same species of plants.

"On June 3, 1944, all larvae had entered the pupal stage and it was noted that the pupae cases were of a brown color, not black like those feeding on the flowers of the previous group [*Sparganothis* sp.].

"June 18, 1944, two moths emerged. They, too, were different in color from the previous group. They were a dark chocolate brown instead of a light straw color.

"June 22, 1944, four more moths emerged.

"July 2, 1944, all moths had emerged. Of the eleven larvae collected, only seven (7) were reared to parenthood."

The range of the host plant, as given by Mathias and Constance,³ is "Great Basin, from Western Wyoming to central Oregon, south to central Arizona."

Although this oecophorid is recorded only from the Grand Canyon we may expect to find it anywhere within the range given for the food plant.

On coloration *schellbachi* will key to the *whitmani-leptotaeniae* complex, but can be distinguished from both those species by the greater extent of the reddish ocherous coloration of the forewing.

Depressaria multifidae Clarke

Formerly⁴ I recorded the food plant of this species as *Lomatium grayi* Coult. & Rose and discussed how the larvae had been given substitute food and had refused it. The larvae of this species do feed on at least one other species

of the plants of this genus. On May 9, 1946, I collected a considerable number of larvae feeding in the leaves of *Lomatium columbianum* Math. & Const., 1 mile west of Lyle, Klickitat County, Wash. From these larvae I obtained one ♂ and 12 ♀♀, the genitalia of which show no differences from those of *multifidae*.

Presumably the larvae usually pupate in debris or in the soil at the base of the host, but one pupa, from which a moth was obtained, was found in a hollow peduncle. There was evidence in this and other stalks of extensive feeding within, and several were found with exit holes cut in the apex between the rays of the umbels.

The moths emerged in the last week of May and the first week in June.

Depressaria moya, n. sp.

Figs. 4-4b, 11-11a

A medium-sized, dark-colored moth with a smooth, shiny appearance.

Labial palpus with second segment buff colored with fuscous shading exteriorly and in the brush; third segment blackish fuscous tipped with light ocherous. Head, thorax, and basal patch on costa of forewing, ocherous; head and thorax with some fuscous scales. Antenna blackish fuscous faintly annulated with paler fuscous. Forewing fuscous shading to blackish fuscous basally; outer discal spot light ocherous preceded by a streak of blackish fuscous and ocherous scales mixed; between this streak and costa an ill-defined ocherous patch; cilia pale fuscous with darker subbasal band. Hind wing light grayish fuscous, slightly darker toward margins; cilia light fuscous with dark subbasal band. Legs buff colored overlaid and suffused with fuscous. Abdomen shining grayish fuscous above, buff suffused with fuscous beneath.

Male genitalia.—Harpe moderately broad, cucullus bluntly pointed; clasper exceeding costa, flattened distally, bluntly pointed, broadened at middle, constricted basally; basal process from sacculus moderately stout, tapering to a sharp point, gently excurved. Anellus longer than broad, the broadest part being posterior of the middle, on each side there is a small excavation and the anterior and posterior edges are concave, the former more so than the latter. Aedeagus short, curved, pointed with a roughly rectangular dorsal process and a

³ MATHIAS, MILDRED E., and CONSTANCE, LINCOLN. North Amer. Flora 28B, pt. 2: 240. 1940.

⁴ Proc. U. S. Nat. Mus. 90: 187. 1941.

shovel-shaped ventral process at base. Vinculum narrow, slightly evaginate anteriorly. Transtilla a narrow, lightly sclerotized band with well-developed lobes. Socii small, mainly indicated by a few hairs.

Female genitalia.—Genital plate broad, strongly sclerotized, anterior edge shallowly concave. Ostium narrow with small raised portion of genital plate, on each side, fused with the ductus bursae. Posterior third of ductus bursae sclerotized, gently tapered to membranous anterior section; inception of ductus seminalis from well before ostium on right side. Signum a large square toothed plate.

Alar expanse, 18–19 mm.

Type.—U.S.N.M. no. 58011.

Type locality.—Hornbrook, Siskiyou County, Calif.

Food plant.—*Lomatium vaginatum* Coult. & Rose.

Remarks.—Described from the ♂ type and 2 ♀ paratypes all from the type locality.

The larvae of this species were collected April 7, 1944, by the author. The first larva entered the soil in the rearing tin on April 12, pupated on the 14th, and the moth emerged on May 5, 1944.

The host, on which these larvae were found, was growing abundantly on a grassy hillside along the east side of U. S. Highway 99 about 1 mile south of the Oregon-California line. The plant may be found commonly well into southern Oregon, and no doubt this *Depressaria* will be found there also.

The larva is as follows: Length 10–12 mm. Head and thoracic shield pale whitish green suffused with pale yellowish brown and variously spotted with brown to black, especially laterally. Thoracic legs pale yellowish with a brown spot at the distal end of each segment exteriorly. Thoracic and abdominal segments concolorous light gray-green above and whitish green below; last segment entirely whitish green, this color extending forward onto the next segment forming a short subdorsal stripe on each side. Anal plate yellowish. Spiracles narrowly edged with dark brown. Tubercles, except center, pale whitish green; center and setae dark brown. Setal group VII of the first abdominal segment is *trisetose*.

Larvae and pupae preserved in the U. S. National Museum.

This species keys to *angustati-multifidae* from which there are no reliable color characters for separation. Locality and food plant will serve to separate *moya* from the above two or, if dissections can be made, the genitalia will establish the identity. In *moya* the clasper extends beyond the costa of harpe but in the other two the clasper is much shorter. In the females of *angustati* and *multifidae* the sclerotized part of the ductus bursae is separated from the ostium by a section of membrane, but in *moya* the ostium and sclerotized part are contiguous.

Depressaria besma, n. sp.

Figs. 5–5a, 12

Labial palpus, head, and thorax light buff; second segment of palpus with fuscous and brown scales mixed in the brush; third segment blackish fuscous except for tip which is buff; thorax with blackish fuscous and pale brown scales mixed anteriorly. Antenna blackish fuscous, with narrow, pale buff annulations. Forewing fuscous, almost black basally; at end of cell a well-defined pale buff spot followed by a few black scales and preceded by a more or less well-defined black line; veins 9, 10, and 11 indicated by black scaling; around apex and termen a series of black spots at the ends of the veins usually preceded by a few pale buff scales; costa pink tinged; cilia light fuscous with a dark subbasal band. Hind wing light grayish fuscous, darker outwardly; cilia sordid buff with a fuscous subbasal band. Legs, except second and third pairs of tarsi, pale buff suffused with fuscous; tarsi blackish fuscous, buff annulated. Abdomen shining grayish above, pale buff below, broadly shaded with grayish laterally.

Male genitalia.—Harpe broad and short; cucullus bluntly pointed; clasper exceeding costa, flattened, excurved, bluntly pointed; basal process from sacculus slender, pointed and sharply outwardly angulate from slightly beyond base. Anellus broader than long, roughly diamond-shaped; anterior and posterior edges with deep V-shaped excavations. Aedeagus short, stout, curved, gently tapered to a point; base with large winglike structure dorsally and broad shovel-shaped ventral process. Transtilla a narrow, lightly sclerotized band with moderately well-developed lobes. Vinculum narrow, broader at middle, rounded. Socii very small.

Female genitalia.—Genital plate strongly sclerotized; anterior edge shallowly concave. Ostium narrow with a raised portion of the genital plate, on each side, fused with the ductus bursae. Ductus bursae strongly sclerotized posteriorly for about one-third of its length, this part swollen at middle; inception of ductus seminalis well before ostium from a small, membranous evagination on the right side of the ductus bursae. Signum a large oval, toothed plate.

Alar expanse, 17–20 mm.

Type.—U.S.N.M. no. 58010.

Type locality.—Fort Lewis, Pierce County, Wash.

Food plant.—*Lomatium utriculatum* (Nutt.) Coult. & Rose.

Remarks.—Described from the ♂ type and one ♂ and one ♀ paratypes, all from the type locality.

The larvae, from which the type series was reared, were collected April 30, 1944, by the author. At this time the larvae were nearly full fed and entered the soil within a few days after being collected. The first larva pupated May 5, but this specimen died. The moths emerged May 29 and 30, 1944.

The host plants on which these specimens were collected were growing on the prairie, 6 miles east of the main gate of Fort Lewis, in an oak–fir–Scotch broom association.

The larvae of this and the foregoing species are almost identical, but those of *besma* may be distinguished from larvae of *moya* by the absence of any brown coloring on the lateral edges of the thoracic shield.

The moths are immediately distinguishable by several characters: The thorax of *besma* is buff colored and that of *moya* ocherous. The outer discal spot of *moya* is ocherous and there is no pink tinge along the costa as in *besma*.

In the male genitalia the anellus of *besma* is broader than long, but that of *moya* is longer than broad. The most conspicuous difference between the two, however, is found in the basal process of the sacculus which is sharply angulate in *besma* and gently excurved in *moya*. In the females the signum of *moya* is large and square, that of *besma* is oval.

Larvae preserved in the U. S. National Museum.

Like the foregoing species *besma* keys to the

same place in the color key, and can be separated from *angustati* and *multifidae* in the same manner. The separation of *moya* and *besma* is discussed above. The genitalia of *besma* differ from those of *angustati* and *multifidae* in the same manner as do those of *moya*.

Depressaria thustra, n. sp.

Figs. 7–7a, 14

A medium-sized dark species nearest *togata* Walsingham.

Labial palpus with second segment ocherous-white speckled exteriorly with black and suffused with purplish fuscous in the brush; third segment blackish fuscous except the tip which is pale ocherous. Head ocherous-brown, the scales whitish tipped; face buff. Thorax and tegula ocherous shaded with blackish fuscous anteriorly. Forewing blackish fuscous with scattered ocherous scaling, especially along costa; base of wing black, except for ocherous scaling at costa; discal spot at end of cell ocherous edged with black; in cell, at basal fourth, an oblique black dash, between this and the outer discal spot an ill-defined line of black and ocherous scales; veins indistinctly indicated by a few black scales; around termen there is an indistinct row of small black spots; costa tinged with pink; cilia light fuscous, darker basally. Hind wing gray, darker toward margins; cilia very pale grayish fuscous with darker subbasal and subterminal bands. Legs buff heavily overlaid with fuscous and mixed with ocherous. Abdomen buff overlaid with grayish fuscous.

Male genitalia.—Harpe moderately long, gradually tapered to the bluntly pointed cucullus; clasper very slender, sharply excurved at distal end; basal process from sacculus finely spinulate, twisted and sharply pointed. Anellus broader than long, roughly bell-shaped. Aedeagus long, curved, pointed, with a small flattened dorsal process and broad flat ventral process at base. Vinculum narrow but broadened at middle. Transtilla narrow, weakly sclerotized, with poorly developed lobes.

Female genitalia.—Genital plate narrow, convex anteriorly at middle, without sclerotized anterior pockets; ostium slitlike. Ductus bursae membranous before ostium, then curved into a strongly sclerotized section, the latter ending about middle of ductus; inception of ductus

seminalis just before ostium. Signum a large, toothed, diamond-shaped plate.

Alar expanse, 18–22 mm.

Type.—U.S.N.M. no. 58009.

Type locality.—Gilmer, Klickitat County, Wash.

Food plant.—*Lomatium triternatum macrocarpum* (Coult. & Rose) Mathias.

Remarks.—Described from the ♂ type, 5 ♂ and 9 ♀ paratypes all from the type locality, collected by the author. Paratypes in the U. S. National and British Museums.

The larvae from which this series was reared were collected in the small village of Gilmer where the food plant was growing abundantly in an open field. The preponderance of larvae feeding in this locality were this species, but those found on the same plant a mile farther east were all *betina*. These larvae, like those of *betina*, feed in the umbels of the host.

This species is nearest *togata*, but differs from it by the evenly curved, thin, hooked clasper and by the twisted basal process from the sacculus. The sclerotized pockets from the anterior edge of the genital plate are absent in this species. The female of *togata* is not known.

In my color key *thustra* goes to the *angustati-multifidae* couplet. The darker color and the ocherous scaling of the forewing should separate *thustra* from the other two.

Depressaria togata Walsingham

I have examined the type ♂ which is in the Walsingham Collection of the British Museum. This specimen is labeled "Arizona" Morrison, 1882, and this locality was entered in the accession book by Durrant under number 35332 when the type was registered. According to Mr. Stringer, who worked with Durrant and Walsingham, and with whom I have discussed the matter, the locality was entered correctly and the type name, printed in caps, establishes beyond doubt the authenticity of the type specimen.

In publishing the description of this species⁵ the type locality was recorded as Montana. In recording the type locality in my revision from the original publication I used the locality given. This should be changed to read ARIZONA.

⁵ Insect Life 1: 254. 1889.

Inga sparsiciliella (Clemens)

A single specimen of this species was submitted for determination through the port of entry at Laredo, Tex. The specimen is from San Luis Potosí, Mexico, and was reared from orchids. This is the first association of *sparsiciliella* with a food plant and is the first record for Mexico.

Genus *Garrha* Walker

Garrha Walker, *List of the specimens of lepidopterous insects in the collection of the British Museum* 35: 1835. 1866. (Genotype: *Garrha sincerella* Walker.)

I have examined the female type of *sincerella* in the British Museum and have found several characters by which it is distinguishable from *Machimia tentoriferella* Clemens, the genotype of *Machimia*, with which Meyrick synonymizes *Garrha*.

In the hind wing of *tentoriferella* vein 5 is remote from connate 3 and 4; in *sincerella*, 4 and 5 are approximate.

The abdomen of the type was glued on but a comparison of its genitalia with other specimens of *sincerella* indicate the abdomen is the original. The abdomen is strongly spined. The signum is present.

The above characters will separate this genus from *Machimia* and I hereby remove *Garrha* from the synonymy.

Genus *Hoplomorpha* Turner

Hoplomorpha Turner, Proc. Linn. Soc. New South Wales 41: 373. 1916. (Genotype: *Cryptolechia abalienella* Walker, *List of the specimens of lepidopterous insects in the collection of the British Museum* 29: 762. 1864.)

This genus has been synonymized with *Machimia* by Meyrick. A study of the genotype *abalienella* shows that it possesses several characters by which it can be distinguished from *M. tentoriferella*, the genotype of *Machimia*.

In the forewing of *abalienella* veins 2, 3, and 4 are closely approximate; in *tentoriferella*, 2 is remote from 3. The discocellulars of the hind wing of *tentoriferella* are inwardly oblique but in *abalienella* they are straight except between 6 and 7.

The male genitalia of *abalienella* differ from those of *tentoriferella* in the following respects: The gnathos is unspined, long, slender, and curved. Vesica unarmed. The elements of the

transtilla and anellus are fused strongly to the middle of the harpe. Clasper divided. Abdomen strongly spined.

The female genitalia differ in having the signum present and the ductus bursae unsclerotized.

For the above reasons I am removing *Hoplomorpha* from the synonymy under *Machimia*.

In character the genitalia strongly suggest *Garrha* and this genus may be synonymous with *Hoplomorpha*.

Cryptolechia trigama Meyrick

Cryptolechia trigama Meyrick, *Exotic Microlepidoptera* 3: 476. 1928.

The unique male type, from Fort Davis, Tex., is in the British Museum. I expressed doubt (p. 224) about the proper placement of this species when I assigned it to *Inga*, and a study of the type proved my misgivings were fully justified. Meyrick's species is not an *Inga* nor does it belong to any other genus now recorded from North America.

In venation it agrees with *Machimia* except 7 goes to apex and the termen is more rounded; but the ciliations of the antenna are shorter and more numerous. In *trigama* the second segment of the labial palpus is smooth in front, in *M. tentoriferella* it is rough.

The genitalia of the type of *trigama* are badly damaged but the clasper is absent, anellus with fleshy, flattened lateral processes extending beyond costa of harpe at base, cornuti (2) present. The gnathos and tegumen are missing. Abdomen not spined.

Although the generic placement of this species is still in doubt it would be unwise to add to the confusion by making another assignment until adequate material is obtained.

Cryptolechia diligenda Meyrick

Cryptolechia diligenda Meyrick, *Exotic Microlepidoptera* 3: 477. 1928.

In placing this species as a synonym of *Himmacia huachucella* (Busck) I was entirely wrong.

Although Meyrick's short, specific description fits *huachucella* as well as *diligenda* the two are not congeneric, nor is *diligenda* congeneric with the genotype of *Cryptolechia*.

Meyrick's species is represented by a unique female in the British Museum, which I have examined, but until such time as the many

oecophorid genera of South America are studied or we have obtained adequate material of this species from southwestern United States, the original generic placement should be used.

For the above reasons I am removing *diligenda* from *Himmacia* where I had placed it.

Genus Thema Walker

Thema Walker, *List of the specimens of lepidopterous insects in the collection of the British Museum* 29: 802. 1864. (Genotype: *Thema brevitella* Walker.)

On page 231 I expressed doubt that *Thema* and *Pleurota* were synonymous. An examination of Walker's type in the British Museum, revealed several differences between the genotypes of the two genera. *T. brevitella* has a long, upturned terminal segment of the labial palpus; in *P. bicostella* (Clerck) the palpus is correct. On the anellus of *brevitella* there are no lateral processes and the vesica is strongly armed (a long, spiraled cornutus). The signum is present, but very weak, in *brevitella* and the ductus bursae is not sclerotized at any point. The abdomen is spined as in *bicostella*.

Unquestionably *Thema* is closely related to *Pleurota* but the generic term *Thema* must be restricted to *brevitella* and its congeners and is hereby removed from synonymy.

Genus Phryganeutis Meyrick

Phryganeutis Meyrick, *Proc. Linn. Soc. New South Wales* 9: 742. 1884. (Genotype: *Phryganeutis cinerea* Meyrick.)

Phryganeutis has been synonymized with *Pleurota* but its type differs in several respects from *bicostella*.

The terminal segment of the labial palpus of *cinerea* is long and upturned, the clasper of the harpe is strongly developed, uncus present but reduced, and the gnathos is long and beaklike. The abdomen is spined.

For the above reasons I am removing *Phryganeutis* from the synonymy under *Pleurota*.

Genus Atheropla Meyrick

Atheropla Meyrick, *Proc. Linn. Ent. Soc. New South Wales* 9: 758-759. 1884. (Genotype: *Atheropla melichlora* Meyrick.)

On page 271 I placed this genus as a synonym of *Eumeyrickia*, following Meyrick, but expressed doubt that the synonymy was correct.

Meyrick's type, which I have seen, belongs in the Oecophoridae, not Ethmiidae as it would

if a synonym of *Eumeyrickia*. The type of *A. melichlora* is in good condition. The abdomen is strongly spined as in *Pleurota*, the venation is the same except 2 is nearer 3 in the forewing in *Pleurota* than it is in *Atheropla*, and the palpi of the latter are upturned, not porrect as in *Pleurota*. In the hind wing of *melichlora* the discocellulars are inwardly oblique, as in *Pleurota*, from connate 3 and 4 and 5, 6, and 7 are almost parallel.

The bursa of *melichlora* is without signum and is simple.

Atheropla is distinct from *Eumeyrickia* and I am removing it from the synonymy of that genus. Whether or not it is synonymous with some Australian or other genus must await the study of the other genera.

Genus *Paratheta* Lower

Paratheta Lower, Proc. Linn. Soc. New South Wales 24, pt. 1: 100. 1899. (Genotype; *P. ochrocoma* Lower, ibid. [Fletcher, Mem. Dept. Agr. India, ent. ser., 11: 164. 1929 (subsequent designation)].)

Mixodetis Meyrick, Trans. Royal Soc. South Australia 26: p. 172. 1902. (Genotype: *Paratheta ochrocoma* Lower, Proc. Linn. Soc. New South Wales 24, pt. 1: 100. 1899 [Fletcher, Mem. Dept. Agr. India, ent. ser., 11: 141. 1929, subsequent designation].) (New synonymy.)

When Meyrick proposed the name *Mixodetis* for *P. ochrocoma* Lower and *P. calyptra* Lower he omitted any reference to *P. lasiomela*, the third species included by Lower in his genus *Paratheta*.

Fletcher, following Meyrick, cited the type of *Mixodetis* Meyrick as *P. ochrocoma* Lower. Thus *Mixodetis* Meyrick becomes a synonym of *Paratheta* Lower.

Paratheta Lower was not described but three species (*P. calyptra*, *P. ochrocoma* and *P. lasiomela*) were described in the genus thus establishing the name.

Meyrick used the name *Paratheta* for the three species *P. syratica*, *P. spodostrota* and *P. philoscia* and designated *P. syratica* as the genotype. *Paratheta* Meyrick is a primary homonym of *Paratheta* Lower and for *syratica* and its congeners I propose the name:

Pseudotheta, nom. nov.

Paratheta Meyrick (not Lower), Trans. Royal Soc.

South Australia 26: 173. 1902. (Genotype: *P. syratica* Meyrick, ibid. [original designation].)

The type of *P. syratica* (Meyrick) is in the Meyrick collection in the British Museum. Since Meyrick did not designate types I have selected as the lectotype a specimen from the type series from Sydney, New South Wales (6-9-84). This is a ♂ of which I have made a genitalic preparation. The species is referable to the Oecophoridae and is not related to *P. ochrocoma* Lower and its congeners.

The abdomen of *syratica* is strongly spined. Harpe simple, without clasper. Uncus pointed. Gnathos spoon-shaped, short. Aedeagus stout, curved, sharply pointed, the distal end somewhat flattened.

Family COSMOPTERYGIDAE

Anoncia aciculata (Meyrick), n. comb.

Borkhausenia aciculata Meyrick, *Exotic Microlepidoptera* 3: 468. 1928.

This species is referable to the genus *Anoncia* as a study of the genitalia of the type reveals.

Aedeagus very long, slender, curved. Harpe rather long, rectangular; basal process of right harpe digitate, slender. Gnathos long, slender, sharply pointed and slightly curved ventrad distally. From the fused basal portion of harpes a stout, tubular, strongly sclerotized process tapers to a needlelike point.

Anoncia astigmatica (Meyrick), n. comb.

Paratheta astigmatica Meyrick, *Exotic Microlepidoptera* 3: 467. 1928.—Gaede, in Bryk, *Lepidopterorum catalogus*, pt. 88: 41. 1938.—McDunnough, *Check list of the Lepidoptera of Canada and the United States of America* (pt. 2, Microlepidoptera), No. 8368, 1. 1929.—Clarke, Proc. U. S. Nat. Mus. 90: 39. 1941.

This species was described and placed in the Oecophoridae by Meyrick, but on characters of wing venation and the genitalia it is clearly a cosmopterygid. Meyrick's concept of the Oecophoridae was sufficiently broad to include this species but since it combines characters of both *Triclonella* Busck and *Anoncia* Clarke its transfer to the Cosmopterygidae is mandatory.

Until the Cosmopterygidae are thoroughly studied I am transferring *astigmatica* to *Anoncia* with which it agrees on all but one character of the male genitalia.